

Measurements of ZZ, Z γ , and Z $\gamma\gamma$ production at the LHC with ATLAS

Thursday, 15 August 2013 09:20 (20 minutes)

Measurements of the productions of final states with multiple neutral bosons with ATLAS will be reported. Using 20 fb⁻¹ data collected by the ATLAS detector at a center-of-mass energy of 8 TeV of proton-proton collisions, the production cross sections for ZZ, Z γ and Z $\gamma\gamma$ final states are measured using events where the Z bosons decay to electron- or muon- pairs. These final states have clean experimental signatures and low back- grounds which make them ideal for precise tests of the Standard Model and for searches of new physics through the anomalous coupling measure- ments. The neutral diboson final states are important for newly discovered Higgs boson measurements as well as for new resonance searches at the LHC.

APS member ID

00000000

Primary author: Dr MOSS, Joshua (Ohio State University)

Presenter: Dr MOSS, Joshua (Ohio State University)

Session Classification: Electroweak Physics

Track Classification: Electroweak Physics